

**IN THE SPECIFICATION:**

Page 1, immediately following the title, please insert the following headings:

**BACKGROUND OF THE INVENTION**

**Field of the Disclosure**

The paragraph beginning on page 1, line 4 has been changed as follows:

The ~~present~~ invention relates to a medical or dental handpiece which has a multi-stage transmission arrangement with at least two planetary gear transmissions connected one after the other, in particular a dental surgical handpiece for emplacing and removing implants.

On page 1, line 8 please insert a heading as follows:

**Related Technology**

The paragraph beginning on page 1, line 19 has been changed as follows:

In order to be able to employ the electric or pneumatic motors normally provided at dental work stations also for these kinds of treatment, there are put to use handpieces which have a transmission arrangement for stepping down the drive speed of rotation at the motor. These so-called step-down transmissions can be realized in various manners, however, preferably so-called planetary transmissions are employed, which make possible a particularly good transfer of the power flux. A dental handpiece having a planetary transmission is for example known from DE 42 21 403 C2 of the present applicant.

On page 2, line 12 please add a heading as follows:

GENERAL DESCRIPTION OF THE INVENTION

The paragraphs beginning on page 2, line 13 have been changed as follows:

Starting from the arrangement known from US 5,569,034, the ~~object of the present invention is to indicate provides~~ a medical or dental handpiece with a transmission arrangement having a plurality of planetary transmissions, whereby the transmission arrangement manifests improved characteristics with regard to its smoothness of running and stability. Further, a particularly compact and space-saving arrangement is to be made possible.

~~This object is achieved by means of a medical or dental handpiece or by a transmission arrangement in accordance with the independent claims.~~

The paragraph beginning on page 2, line 32 has been changed as follows:

In accordance with a first aspect of the ~~present~~ invention, the drive shaft for each transmission stage is extended beyond the sun gear driven thereby, and the planetary gear carrier belonging to this sun gear is arranged rotatably on the extension. The interleaved arrangement of the planetary gear carriers thereby obtained makes possible on the one hand a more compact arrangement of the transmission stages, on the other the axial stability of the transmission arrangement is increased and therewith its smoothness of running.

The paragraphs beginning on page 3, line 17 have been changed as follows:

In accordance with a second aspect of the ~~present~~ invention, the hollow gears for all transmission stages are formed by means of a single sleeve-like component

with a correspondingly constituted inner toothing. By means of this solution, there is formed a common outer mounting extending at least over the positions of the various planetary gears, which in turn makes possible an improved axial stability of the transmission arrangement. Also, this inventive concept thus leads to an improvement of the running characteristics of the arrangement. This second solution comes into consideration in particular when the sun gears and the planetary gears of the individual transmission stages respectively have identical dimensions. In this case, the common hollow gear can be formed via a simple cylinder-like component.

In accordance with a further aspect of the present invention, the components of a planetary transmission are produced at least in part of a ceramic material, whereby preferably silicon nitride ( $Si_3N_4$ ) is concerned. This material distinguishes itself through its high stability and favourable frictional properties, through which a particularly effective and wear-free force transfer is made possible. In particular the drive shafts and the planetary gear carriers of the transmission stages, and the toothed gears arranged therein, may be of this ceramic material.

On page 4, line 5 please insert a heading as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

On page 4, line 16 please insert a heading as follows:

DETAILED DESCRIPTION